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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/311,562	05/14/1999	LEONARD J. CIMINI	1999-0045-(2	1389

7590 02/03/2004  
Samuel H Dworetsky  
AT&T Corporation  
P O Box 4110  
Middletown, NJ 07748-4110

EXAMINER

HSU, ALPUS

ART UNIT	PAPER NUMBER
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2665

DATE MAILED: 02/03/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/311,562

Applicant(s)

CIMINI ET AL.

Examiner

Alpus H. Hsu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 19 November 2003.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 19-21, 26-35, 44-51, 53-55 and 60-64 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 1-8, 19-21, 26-35, 44-51, 53-55 and 60-64 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

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1. In the specification, page 1, lines 9-12, the applicant is requested to **update** the status from time to time for the listed related co-pending applications.
2. Claims 1-8, 19-21, 26-35, 44-51, 53-55, 60-64 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

The claimed subject matter of having "a receiver that includes a front-end that receives said modulated carriers, and a synchronization processor that develops an offset measure between a clock employed in creating said modulated transmission carriers and a clock of said receiver by, in frequency domain, processing phases of said plurality of received modulated carriers" as in claim 1 and the claimed subject matter of having "developing in said receiver a synchronization signal from computed phases in the frequency domain of said individually modulated carriers; and applying said synchronization signal to synchronize the plurality of modulated carriers that are received by said receiver" as in claim 44 were not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. To be more specific, the receiver as claimed (Figure 3) was briefly described on page 6, lines 1-11 of the disclosure without further explanation as to how the receiver is consisted of and how the receiver is operated to carry out the claimed invention. And the synchronization signal as claimed was described on page 19, lines 18-23 of the disclosure, which requires the averaging of the phase difference between each tone pair to arrive at an overall phase estimate to derive the overall

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synchronization signal. None of the disclosure fully support the newly claimed invention as amended in claims 1 and 44 as a whole.

3. Claims 1-8, 19-21, 26-35, 45- 50, 53-55 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, line 5, "said modulated transmission carriers" lacks antecedent basis.

In claim 20, line 2, "schema" should read as --scheme--.

In claim 26, lines 1-2, "the means to synchronize the operating frequency" lacks antecedent basis.

In claim 45, lines 1-2, "the sampling timing of said received carriers" lacks antecedent basis.

In claim 46, lines 1-2, "said individually modulated transmission carriers" lacks antecedent basis.

In claim 49, lines 1-2, "the structure of the frequency domain representation" lacks antecedent basis.

In claim 50, lines 1-2, "the synchronizing of the timing of signals" lacks antecedent basis.

4. No prior art rejection can be applied at this time due to the nature of 112, 1<sup>st</sup> and 2<sup>nd</sup> paragraphs problems.

5. Applicant's arguments filed November 19, 2003 have been fully considered but they are not persuasive.

In the remark, the applicant merely refers to pages 8-14 of the disclosure for supporting the claimed invention as introduced in the amended claims, which was not persuasive since none

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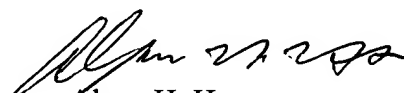
of the disclosure clearly describes or fully supports the data communication system and method as amended now.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alpus H. Hsu whose telephone number is (703)305-4377. The examiner can normally be reached on M-F (5:30-3:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Huy D. Vu can be reached on (703)308-6602. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AHH



Alpus H. Hsu  
Primary Examiner  
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